REMARKS/ARGUMENTS

Claims 1 to 28 are pending. No claims have been allowed.

Independent Claims 1, 12, 13, 21 and 23 have been amended to call for graphite platelets which have a size of less than 200 microns after pulverizing (such as by milling) as disclosed on page at paragraphs 0070 and 0071 on pages 15 and 16 of the specification and Examples 4 and 5 (1 micron (μm) is 10^{-6} meters). The precursor graphite has been expanded by the microwave or radiofrequency waves and then pulverized to produce platelets with a size less than 200 microns. The platelets produced are unique in that they are single platelets rather than agglomerations of platelets as described in the prior art. Thus the platelets are unique because of the way they are formed using the radiofrequency waves and produce very unique products.

Claims 1-5, 8-16, 18-20 and 23-24 were rejected over Saito et al (U.S. Patent No. 6,024,900)in view of Adams et al (U.S. Patent No. 6,200,915) and Ottinger et al (U.S. Pre-Grant Publication No. 2002/0114952). Saito et al describes the use of graphite powders having a particle diameter of 5 to 12 μm (microns). The particles are as formed by conventional heat expansion. There is no

use of microwaves or radiofrequency waves to expand the particles as in amended independent Claims 1, 12, 13, 21 and 23. This reference could not suggest the presently claimed invention.

Adams (U.S. Patent No. 6,200,915 B1) describes a textile fabric coated with an elastomer silicone composition with laminar form. Expanded graphite is mentioned in a range from 5 to 500 μm (microns; 5 to 500 x 10^{-6} M). These are conventional expanded graphite particles which are much different from those of the present invention which have been microwave expanded and pulverized to provide single platelets with a size of 200 microns or less.

Ottinger et al (U.S. Publication No. 2002/0114952 A1) describes conventional expanded graphite in its expanded form as described at paragraph 0036. The graphite is not pulverized. The graphite is not expanded using microwaves as in amended independent Claims 1, 12, 13, 21 and 23. Thus one skilled in the art could not derive the claimed invention from this combination of references. Reconsideration is requested.

Dependent Claims 6, 7, 17 and 25 were rejected under 35 USC 103(a) as being unpatentable over Saito et al in view of Adams et al and Ottinger et al as previously

applied in further view of Blain et al (U.S. Patent No. 6,413,601 B1) and Cha et al (U.S. Patent No. 5,164,054).

Blain et al describes a thermal insulating device composed of layers of graphite separated by layers of polymer. This is remote from the present composite invention. This reference is remote from the presently claimed invention. Cha et al (U.S. Patent No. 5,164,054) describes a process for producing hydrogen and carbon black. There is no discussion of expanding graphite. This reference is remote from the present invention and one skilled in the art could not possibly derive expanding of graphite using microwaves or radiofrequency waves from this reference. The production of hydrogen from graphite is not even remotely related to the claimed invention.

At best the combination of references with Cha et al is a clear hindsight rejection based upon Applicants' own disclosure. Blain et al is equally remote from the claimed invention. Saito et al, Adams et al and Ottinger et al in combination with these references do not suggest the invention of Claims 6, 7, 17 and 25. Reconsideration is requested.

Claims 21 was rejected under 35 USC 103(a) as being unpatentable over Saito et al in view of Adams et al and Ottinger et al as previously applied in view of Greinke

et al (U.S. Patent No. 6,555,271) which relates to a lithium ion battery. This reference teaches that graphite is laminated to a metal substrate. An anode is created from exfoliated graphite which is not pulverized. The example refers to "worms" of exfoliated graphite. This reference is remote from the present invention which could not be derived from the combination of references. Reconsideration is requested. It is expected that the expanded graphite is necessary for the process and product claimed.

Claim 22 relating to catalytic conversion was rejected over Saito et al in view of Adams et al and Ottinger et al in view of Bonville (U.S. Patent No. 6,248,462).

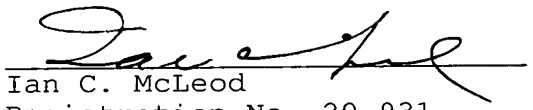
Bonville describes a "porous graphite" anode alone or in combination with a polymer and catalyst for use in an electrochemical free cell assembly. There is no suggestion of the presently claimed invention comprising microwave or radiofrequency wave expanded and pulverized graphite platelets from this combination of references. Bonville in combination with the other references does not suggest the invention of Claim 22. Reconsideration is requested.

Claims 26 to 28 ere rejected over Saito et al in view of Adams et al and Ottinger et al as previously applied in view of Von Bonin (U.S. Patent No. 5,288,429).

Von Bonin et al describes a process for expanding graphite in a mold using a liquid in graphite. There is no pulverizing of the graphite. This reference in combination with the others could not possibly suggest the claimed invention to one skilled in the art.

It is now believed that Claims 1 to 28 are in condition for allowance. Notice of Allowance is requested.

Respectfully,



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